REMARKS

The Office Action dated October 22, 2007 has been carefully reviewed. Claims 1-18 are pending in this application. Applicants request reconsideration of this application in light of the remarks presented herein.

CLAIM REJECTIONS BASED ON § 102 - NOGUCHI

In the Office Action dated October 22, 2007, claims 1-7 and 16-18 were rejected by the Examiner under Section 102(b) as being anticipated by U.S. Patent No. 4,143,620 to Noguchi et al. ("Noguchi").

MPEP § 2131 provides that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must be arranged as required by the claim. *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990).

In making his rejection, the Examiner alleges that Noguchi teaches:

> determining the temperature of a reformate gas (see col. 8 lines 29-45 where the reforming reactor temperature is detected, which corresponds to the outlet temperature of the reformate gas) produced by the fuel reformer, and

Apparently, the Examiner is asserting that the cited passage of claim 1 of Noguchi (i.e., col. 8, lines 29-45) teaches "determining the temperature of a reformate gas produced by the fuel reformer." Contrary to the Examiner's statement that such a limitation is disclosed in Noguchi, respectfully, it is not. As such, the rejections are unsupported by the art and should be withdrawn.

The passage of claim 1 of Noguchi cited by the Examiner is as follows (with emphasis added):

> air-fuel ratio adjusting means mounted on said carburetor and being operative in response to the variation ***in the temperature of said reactor vessel*** to vary the cross-sectional area of said secondary air intake passage for thereby controlling the air-fuel ratio of said rich air-fuel mixture so that when said temperature is not high enough to activate said catalyst, the air-fuel ratio of the rich mixture controlled by said air-fuel ratio adjusting means is controlled to allow a part of the mixture to be ignited by said ignition means to produce heat which raises the temperature of said reactor vessel, and when said temperature in the reactor vessel is high enough to activate said catalyst, the mixture is further enriched to the extent that the temperature is not further increased above a point where the reformation is substantially at a maximum.

As noted above, the "air-fuel ratio adjusting means" of Noguchi is responsive to the temperature of the reactor vessel. In the October 22, 2007 Office Action, the Examiner speculates that the temperature of the reactor "corresponds to the outlet temperature of the reformate gas." Respectfully, this is contrary to the teaching of Noguchi. See, for example, the following passages column 5, lines 30-35 and 62-66, respectively, where Noguchi clearly describes that ***the temperature of the reactor vessel is indicative of the temperature of the exhaust gas produced by the engine, not the reformate gas produced by the reformer*** (with emphasis added):

> ***At the time of, or just after the cold-starting of the engine 10, the catalyst particle layer 170 in the reactor vessel 110 is at a low temperature***, so that the air flowing through the temperature detector 184 enters the temperature measuring chamber 188 at a low temperature.
>
> ***By a continued operation of the engine, the layer 170 of the catalyst particles in the reactor vessel 110 is heated*** to an elevated temperature with the result that the air passing through the temperature detector 184 is also heated.

These passages of the disclosure contradict the Examiner's assertion that claim 1 of Noguchi teaches "determining the temperature of a reformate gas produced by the fuel reformer." While Noguchi discloses a system in which an air/fuel mixture is changed in response to the temperature of a reactor vessel, the above-passages of the disclosure make it clear that such a temperature is indicative of the temperature of the engine's exhaust gas and not the temperature of the reformate gas being formed

by the fuel reformer. Therefore, the Examiner's rejection of claims 1-7 and 16-18 is improper and should be withdrawn.

CLAIM REJECTIONS BASED ON § 103 - NOGUCHI

Claims 8-15 were rejected under Section 103 as being obvious over Noguchi. The Section 103 rejections based on Noguchi were based on the same interpretation of Noguchi relied upon for the Section 102 rejections. As described above, the Section 102 rejections based on Noguchi rely on a flawed interpretation of Noguchi and should be withdrawn. As a result, the Section 103 rejections of claims 8-15 based on Noguchi are likewise improper and should be withdrawn.

CONCLUSION

In view of the foregoing remarks, it is submitted that this application is in condition for allowance. Action to that end is hereby solicited.

It is respectfully requested that, if necessary to effect a timely response, this paper be considered as a Petition for an Extension of Time sufficient to effect a timely response and shortages in other fees be charged, or any overpayment in fees be credited, to the Account of Barnes & Thornburg LLP, Deposit Account No. 10-0435 with reference to file 9501-73118.

Respectfully submitted,

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